

⁷
~~32.~~ (Once Amended) The antibody or portion thereof of claim ~~31~~⁶
wherein the label is a radioisotope selected from the group consisting of:

- C²
level.
- (a) ^{125}I ;
 - (b) ^{121}I ;
 - (c) ^{131}I ;
 - (d) ^{112}In ; and
 - (e) $^{99\text{m}}\text{Tc}$.

~~27~~
~~52.~~ (Once Amended) The antibody or portion thereof of claim ~~51~~²⁶
wherein the label is selected from the group consisting of:

- C³
- (a) an enzyme label;
 - (b) a radioisotope;
 - (c) a fluorescent label; and
 - (d) biotin.

~~28~~
~~53.~~ (Once Amended) The antibody or portion thereof of claim ~~52~~²⁷
wherein the label is a radioisotope selected from the group consisting of:

- (a) ^{125}I ;
- (b) ^{121}I ;
- (c) ^{131}I ;
- (d) ^{112}In ; and
- (e) $^{99\text{m}}\text{Tc}$.

~~50~~
~~76.~~ (Once Amended) The antibody or portion thereof of claim ~~75~~⁵⁰
wherein the label is selected from the group consisting of:

- C⁴
- (a) an enzyme label;
 - (b) a radioisotope;
 - (c) a fluorescent label; and
 - (d) biotin.

⁵²
~~77~~. (Once Amended) The antibody or portion thereof of claim ⁵¹~~76~~ wherein the label is a radioisotope selected from the group consisting of:

- C⁴
Corel.
- (a) ^{125}I ;
 - (b) ^{121}I ;
 - (c) ^{131}I ;
 - (d) ^{112}In ; and
 - (e) $^{99\text{m}}\text{Tc}$.

⁵⁸
~~83~~. (Once Amended) A method of detecting Neutrokin- α protein comprising:

- C⁵
- (a) contacting the Neutrokin- α protein with the antibody or portion thereof of claim ⁴³~~68~~; and
 - (b) detecting the Neutrokin- α protein.

⁶⁶
~~91~~. (Once Amended) The method of claim ⁶⁵~~90~~ wherein the label is a radioisotope selected from the group consisting of:

- C⁶
- (a) ^{125}I ;
 - (b) ^{121}I ;
 - (c) ^{131}I ;
 - (d) ^{112}In ; and
 - (e) $^{99\text{m}}\text{Tc}$.

⁷²
~~97~~. (Once Amended) The antibody or portion thereof of claim ⁷¹~~96~~ wherein the label is selected from the group consisting of:

- C⁷
- (a) an enzyme label;
 - (b) a radioisotope;
 - (c) a fluorescent label; and
 - (d) biotin.

73
98. (Once Amended) The antibody or portion thereof of claim 97 72

wherein the label is a radioisotope selected from the group consisting of:

- C7
cont.
- (a) ^{125}I ;
 - (b) ^{121}I ;
 - (c) ^{131}I ;
 - (d) ^{112}In ; and
 - (e) $^{99\text{m}}\text{Tc}$.

79
104. (Once Amended) A method of detecting Neutrokin- α protein comprising:

- C8
- (a) contacting the Neutrokin- α protein with the antibody or portion thereof of claim 92; and
 - (b) detecting the Neutrokin- α protein.

88
113. (Once Amended) An isolated antibody or portion thereof that specifically binds to a protein consisting of a fragment of SEQ ID NO:2, wherein said fragment comprises an amino acid sequence of at least 30 contiguous amino acid residues of SEQ ID NO:2.

94
120. (Once Amended) The antibody or portion thereof of claim 119 93
wherein the label is selected from the group consisting of:

- (a) an enzyme label;
- (b) a radioisotope;
- (c) a fluorescent label; and
- (d) biotin.

C10
95
121. (Once Amended) The antibody or portion thereof of claim 120 94
wherein the label is a radioisotope selected from the group consisting of:

- (a) ^{125}I ;
- (b) ^{121}I ;
- (c) ^{131}I ;
- (d) ^{112}In ; and
- (e) $^{99\text{m}}\text{Tc}$.

¹⁰¹
127. (Once Amended) A method of detecting Neutrokin- α protein comprising:

- C¹¹
- (a) contacting the Neutrokin- α protein with the antibody or portion thereof of claim ~~113~~⁸⁸; and
 - (b) detecting the Neutrokin- α protein.

¹²⁰
~~146~~. (Once Amended) The antibody or portion thereof of claim ~~145~~¹¹⁹ wherein the label is selected from the group consisting of:

- (a) an enzyme label;
- (b) a radioisotope;
- (c) a fluorescent label; and
- (d) biotin.

C¹²
¹²¹
~~147~~. (Once Amended) The antibody or portion thereof of claim ~~146~~¹²⁰ wherein the label is a radioisotope selected from the group consisting of:

- (a) ¹²⁵I;
- (b) ¹²¹I;
- (c) ¹³¹I;
- (d) ¹¹²In; and
- (e) ^{99m}Tc.

¹²⁷
153. (Once Amended) A method of detecting Neutrokin- α protein comprising:

- C¹³
- (a) contacting the Neutrokin- α protein with the antibody or portion thereof of claim ~~136~~¹¹⁰; and
 - (b) detecting the Neutrokin- α protein.

¹⁴¹
~~167~~. (Once Amended) The antibody or portion thereof of claim ~~166~~¹⁴⁰ wherein the label is selected from the group consisting of:

- C¹⁴
- (a) an enzyme label;
 - (b) a radioisotope;
 - (c) a fluorescent label; and
 - (d) biotin.

142
168.

(Once Amended)

The antibody or portion thereof of claim 167

wherein the label is a radioisotope selected from the group consisting of:

- (a) ^{125}I ;
- (b) ^{121}I ;
- (c) ^{131}I ;
- (d) ^{112}In ; and
- (e) $^{99\text{m}}\text{Tc}$.

C¹⁴
Correl.

148
174.

(Once Amended)

A method of detecting Neutrokin-alpha protein

comprising:

- (a) contacting the Neutrokin-alpha protein with the antibody or portion thereof of claim 162; and
- (b) detecting the Neutrokin-alpha protein.

C¹⁵

162
188.

(Once Amended)

The antibody or portion thereof of claim 187

wherein the label is selected from the group consisting of:

- (a) an enzyme label;
- (b) a radioisotope;
- (c) a fluorescent label; and
- (d) biotin.

163
189.

(Once Amended)

The antibody or portion thereof of claim 188

wherein the label is a radioisotope selected from the group consisting of:

- (a) ^{125}I ;
- (b) ^{121}I ;
- (c) ^{131}I ;
- (d) ^{112}In ; and
- (e) $^{99\text{m}}\text{Tc}$.

C¹⁶

¹⁶⁹
~~185~~. (Once Amended) A method of detecting Neutrokin- α protein comprising:

- C¹⁷
- (a) contacting the Neutrokin- α protein with the antibody or portion thereof of claim ~~183~~¹⁵⁷; and
- (b) detecting the Neutrokin- α protein.

¹⁸⁵
~~211~~. (Once Amended) The antibody or portion thereof of claim ~~210~~¹⁸⁴ wherein the label is selected from the group consisting of:

- (a) an enzyme label;
- (b) a radioisotope;
- (c) a fluorescent label; and
- (d) biotin.

C¹⁸

¹⁸⁶
~~212~~. (Once Amended) The antibody or portion thereof of claim ~~211~~¹⁸⁵ wherein the label is a radioisotope selected from the group consisting of:

- (a) ^{125}I ;
- (b) ^{121}I ;
- (c) ^{131}I ;
- (d) ^{112}In ; and
- (e) $^{99\text{m}}\text{Tc}$.

¹⁹³
~~219~~. (Once Amended) A method of detecting Neutrokin- α protein comprising:

- C¹⁹
- (a) contacting the Neutrokin- α protein with the antibody or portion thereof of claim ~~204~~¹⁷⁸; and
- (b) detecting the Neutrokin- α protein.

²⁰²
~~228~~. (Once Amended) An isolated antibody or portion thereof that specifically binds to a protein consisting of a fragment of the polypeptide encoded by the cDNA contained in ATCC Deposit Number 97768, wherein said fragment comprises an amino acid sequence of at least 30 contiguous amino acid residues of the polypeptide encoded by the cDNA contained in ATCC Deposit Number 97768.

C²⁰

208

207

~~235~~. (Once Amended) The antibody or portion thereof of claim ~~234~~

wherein the label is selected from the group consisting of:

- (a) an enzyme label;
- (b) a radioisotope;
- (c) a fluorescent label; and
- (d) biotin.

C²¹

209

~~236~~. (Once Amended) The antibody or portion thereof of claim ~~235~~

wherein the label is a radioisotope selected from the group consisting of:

- (a) ¹²⁵I;
- (b) ¹²¹I;
- (c) ¹³¹I;
- (d) ¹¹²In; and
- (e) ^{99m}Tc.

208

215

~~242~~. (Once Amended) A method of detecting Neutrokin- α protein

comprising:

- (a) contacting the Neutrokin- α protein with the antibody or portion thereof of claim ~~238~~; and
- (b) detecting the Neutrokin- α protein.

C²²

Please add new claims 251-319 below:

224

~~251~~. (New) An isolated antibody or portion thereof that specifically binds to an isolated Neutrokin- α multimer comprising an amino acid sequence consisting of amino acids 134-285 of SEQ ID NO:2.

225

~~252~~. (New) The antibody or portion thereof of claim ~~251~~ which is a monoclonal antibody.

224

C²³

226

~~253~~. (New) The antibody or portion thereof of claim ~~251~~ which is a polyclonal antibody.

224

380

C

²²⁷
~~254~~. (New) The antibody or portion thereof of claim ²²⁴~~251~~ which is a Fab fragment.

²²⁸
~~255~~. (New) The antibody or portion thereof of claim ²²⁴~~251~~ which is labeled.

²²⁹
~~256~~. (New) The antibody or portion thereof of claim ²²⁸~~255~~ wherein the label is selected from the group consisting of:

- (a) an enzyme label;
- (b) a radioisotope;
- (c) a fluorescent label; and
- (d) biotin.

²³⁰
~~257~~. (New) The antibody or portion thereof of claim ²²⁹~~256~~ wherein the label is a radioisotope selected from the group consisting of:

- (a) ^{125}I ;
- (b) ^{121}I ;
- (c) ^{131}I ;
- (d) ^{112}In ; and
- (e) $^{99\text{m}}\text{Tc}$.

²³¹
~~258~~. (New) A composition comprising the antibody or portion thereof of claim ²³⁴~~251~~ and a carrier.

²³²
~~259~~. (New) An isolated cell that produces the antibody of claim ²²⁴~~251~~.

²³³
~~260~~. (New) An isolated cell line that produces the antibody of claim ²²⁴~~251~~.

²³⁴
~~261~~. (New) A hybridoma that produces the antibody of claim ²²⁴~~251~~.

²³⁵
~~262~~. (New) A hybridoma that produces the antibody of claim ²²⁵~~252~~.

²³⁶
~~263~~. (New) A method of detecting Neurokine-alpha protein comprising:

- (a) contacting the Neurokine-alpha protein with the antibody or portion thereof of claim ²²⁴~~251~~; and
- (b) detecting the Neurokine-alpha protein.

237
264. (New) The method of claim 236 wherein the Neutrokin- α protein is in a biological sample.

238
265. (New) The method of claim 236 wherein the Neutrokin- α protein is *in vivo*.

239
266. (New) The method of claim 236 wherein the antibody or portion thereof is a monoclonal antibody.

240
267. (New) The method of claim 236 wherein the antibody or portion thereof is a polyclonal antibody.

241
268. (New) The method of claim 236 wherein the antibody or portion thereof is a Fab fragment.

23
242
269. (New) The method of claim 236 wherein the antibody or portion thereof is labeled.

243
270. (New) The method of claim 242 wherein the label is selected from the group consisting of:

- (a) an enzyme label;
- (b) a radioisotope;
- (c) a fluorescent label; and
- (d) biotin.

244
271. (New) The method of claim 243 wherein the label is a radioisotope selected from the group consisting of:

- (a) ^{125}I ;
- (b) ^{121}I ;
- (c) ^{131}I ;
- (d) ^{112}In ; and
- (e) $^{99\text{m}}\text{Tc}$.

²⁴⁵
272. (New) An isolated antibody or portion thereof that specifically binds to an isolated recombinant Neutrokin- α protein purified from a cell culture wherein the cells in said cell culture comprise a polynucleotide encoding amino acids 1-285 of SEQ ID NO:2 operably associated with a regulatory sequence that controls gene expression.

²⁴⁶
273. (New) The antibody or portion thereof of claim ²⁴⁵272 wherein the cells in said cell culture are eukaryotic cells.

²⁴⁷
274. (New) The antibody or portion thereof of claim ²⁴⁵272 wherein the cells in said cell culture are Sf9 cells.

²⁴⁸
275. (New) The antibody or portion thereof of claim ²⁴⁵272 wherein the cells in said cell culture are *E. coli* cells.

C23
cont.
²⁴⁹
276. (New) The antibody or portion thereof of claim ²⁴⁵272 which is a monoclonal antibody.

²⁵⁰
277. (New) The antibody or portion thereof of claim ²⁴⁵272 which is a polyclonal antibody.

²⁵¹
278. (New) The antibody or portion thereof of claim ²⁴⁵272 which is a Fab fragment.

²⁵²
279. (New) The antibody or portion thereof of claim ²⁴⁵272 which is labeled.

²⁵³
280. (New) The antibody or portion thereof of claim ²⁵²279 wherein the label is selected from the group consisting of:

- (a) an enzyme label;
- (b) a radioisotope;
- (c) a fluorescent label; and
- (d) biotin.

254
281. (New) The antibody or portion thereof of claim 280 wherein the label is a radioisotope selected from the group consisting of:

- (a) ^{125}I ;
- (b) ^{121}I ;
- (c) ^{131}I ;
- (d) ^{112}In ; and
- (e) $^{99\text{m}}\text{Tc}$.

255
282. (New) A composition comprising the antibody or portion thereof of claim 272 and a carrier.

256
283. (New) An isolated cell that produces the antibody of claim 272.

257
284. (New) An isolated cell line that produces the antibody of claim 272.

258
285. (New) A hybridoma that produces the antibody of claim 272.

259
286. (New) A hybridoma that produces the antibody of claim 276.

260
287. (New) A method of detecting Neurokine-alpha protein comprising:
(a) contacting the Neurokine-alpha protein with the antibody or portion thereof of claim 272, and
(b) detecting the Neurokine-alpha protein.

261
288. (New) The method of claim 287 wherein the Neurokine-alpha protein is in a biological sample.

262
289. (New) The method of claim 287 wherein the Neurokine-alpha protein is *in vivo*.

263
290. (New) The method of claim 287 wherein the antibody or portion thereof is a monoclonal antibody.

264
291. (New) The method of claim 287 wherein the antibody or portion thereof is a polyclonal antibody.

265
292. (New) The method of claim 287 wherein the antibody or portion thereof is a Fab fragment.

260
293. (New) The method of claim 287 wherein the antibody or portion thereof is labeled.

266
294. (New) The method of claim 293 wherein the label is selected from the group consisting of:

- (a) an enzyme label;
- (b) a radioisotope;
- (c) a fluorescent label; and
- (d) biotin.

267
295. (New) The method of claim 294 wherein the label is a radioisotope selected from the group consisting of:

- (a) ^{125}I ;
- (b) ^{121}I ;
- (c) ^{131}I ;
- (d) ^{112}In ; and
- (e) $^{99\text{m}}\text{Tc}$.

268
296. (New) An isolated antibody or portion thereof obtained from an animal immunized with an isolated recombinant Neutrokin- α protein purified from a cell culture wherein the cells in said cell culture comprise a polynucleotide encoding amino acids 1-285 of SEQ ID NO:2 operably associated with a regulatory sequence that controls gene expression, wherein said antibody or portion thereof specifically binds said Neutrokin- α protein.

270
297. (New) The antibody or portion thereof of claim 296 wherein the cells in said cell culture are eukaryotic cells.

269
271
298. (New) The antibody or portion thereof of claim 296 wherein the cells in said cell culture are Sf9 cells.

272
299. (New) The antibody or portion thereof of claim 264 wherein the cells in said cell culture are *E. coli* cells.

273
300. (New) The antibody or portion thereof of claim 269 which is a monoclonal antibody.

274
301. (New) The antibody or portion thereof of claim 269 which is a polyclonal antibody.

275
302. (New) The antibody or portion thereof of claim 269 which is a Fab fragment.

276
303. (New) The antibody or portion thereof of claim 269 which is labeled.

277
304. (New) The antibody or portion thereof of claim 276 wherein the label is selected from the group consisting of:

- C23
cont
- (a) an enzyme label;
 - (b) a radioisotope;
 - (c) a fluorescent label; and
 - (d) biotin.

278
305. (New) The antibody or portion thereof of claim 277 wherein the label is a radioisotope selected from the group consisting of:

- (a) ^{125}I ;
- (b) ^{121}I ;
- (c) ^{131}I ;
- (d) ^{112}In ; and
- (e) $^{99\text{m}}\text{Tc}$.

279
306. (New) A composition comprising the antibody or portion thereof of claim 269 and a carrier.

280
307. (New) An isolated cell that produces the antibody of claim 269.

281
308. (New) An isolated cell line that produces the antibody of claim 269.

282
309. (New) A hybridoma that produces the antibody of claim 296. 269

283
310. (New) A hybridoma that produces the antibody of claim 300. 213

284
311. (New) A method of detecting Neutrokin- α protein comprising:
(a) contacting the Neutrokin- α protein with the antibody or portion thereof of claim 296, and
(b) detecting the Neutrokin- α protein.

285
312. (New) The method of claim 311 wherein the Neutrokin- α protein is in a biological sample. 284

286
313. (New) The method of claim 311 wherein the Neutrokin- α protein is *in vivo*. 284

287
314. (New) The method of claim 311 wherein the antibody or portion thereof is a monoclonal antibody. 284

288
315. (New) The method of claim 311 wherein the antibody or portion thereof is a polyclonal antibody. 284

289
316. (New) The method of claim 311 wherein the antibody or portion thereof is a Fab fragment. 284

290
317. (New) The method of claim 311 wherein the antibody or portion thereof is labeled. 284

291
318. (New) The method of claim 311 wherein the label is selected from the group consisting of:

- (a) an enzyme label;
- (b) a radioisotope;
- (c) a fluorescent label; and
- (d) biotin.

292

290

319. (New) The method of claim 318 wherein the label is a radioisotope selected from the group consisting of:

- (a) ^{125}I ;
- (b) ^{121}I ;
- (c) ^{131}I ;
- (d) ^{112}In ; and
- (e) $^{99\text{m}}\text{Tc}$.

C23
ord.

290

d